



Metro JPA

Overview of San Diego's Pure Water Program

March 5, 2015



San Diego Water/Wastewater Facts



Provide services to
8th largest US city
& surrounding
area

1.3M water &
2.5M wastewater
customers from
15 agencies

Regulated by
Federal & State
agencies

USEPA,
State Water
Resources
Control Board

~\$1B invested in
systems over last
5 years

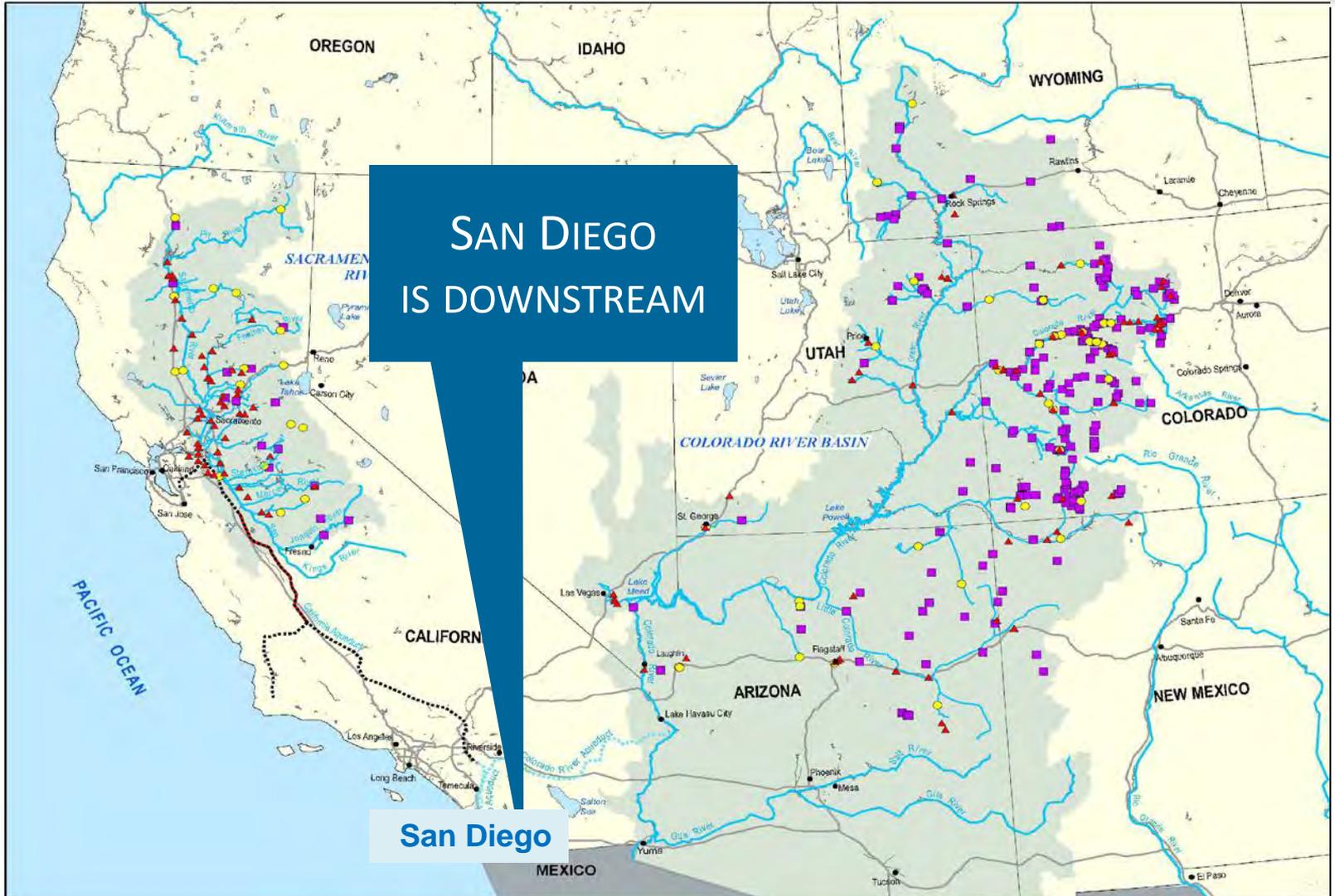
More than
\$412M planned
capital projects
over next 2 years

Annual purchase
of imported
water (\$209M)
and facility
construction and
maintenance are
biggest costs





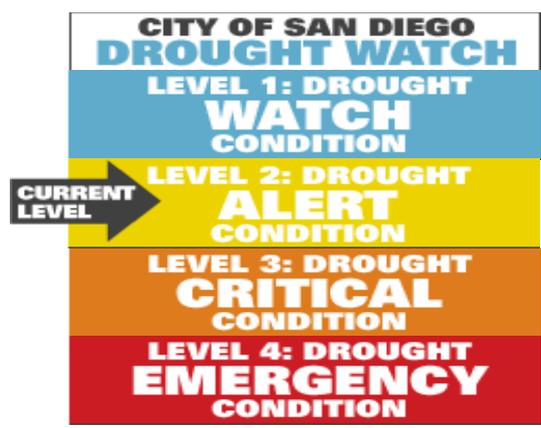
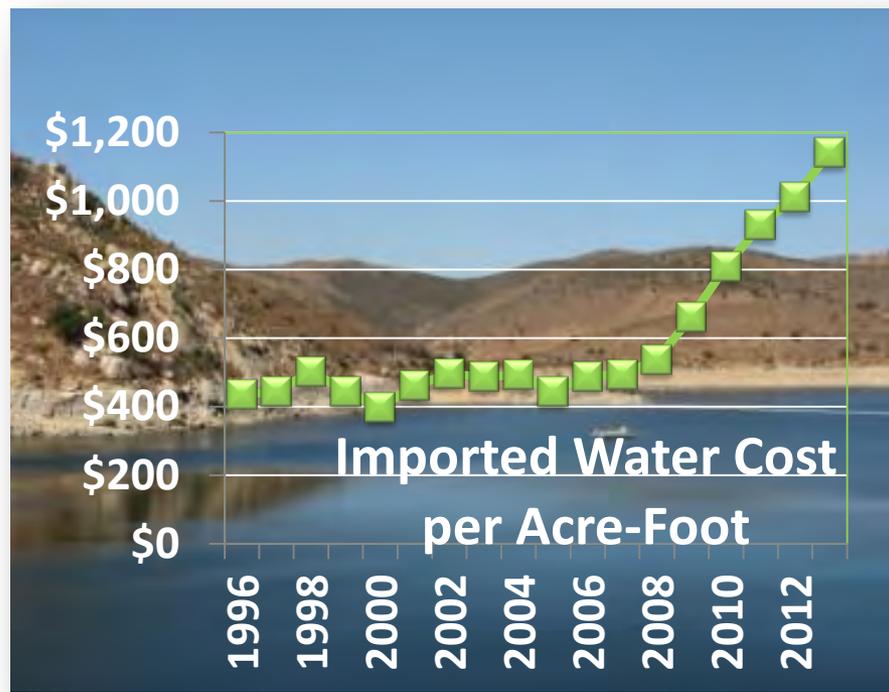
85% of Our Water is Imported





Numerous Water Challenges

- Limited local & imported supplies
- Recurring drought
- Population growth
- Bay Delta constraints
- Natural disaster risk
- Rising imported water costs





What is Being Done?

Regional:

- Water Conservation
- Desalination (SDCWA)



City of San Diego:

- Water Conservation
- Groundwater Development
- Recycled Water
- Potable Reuse





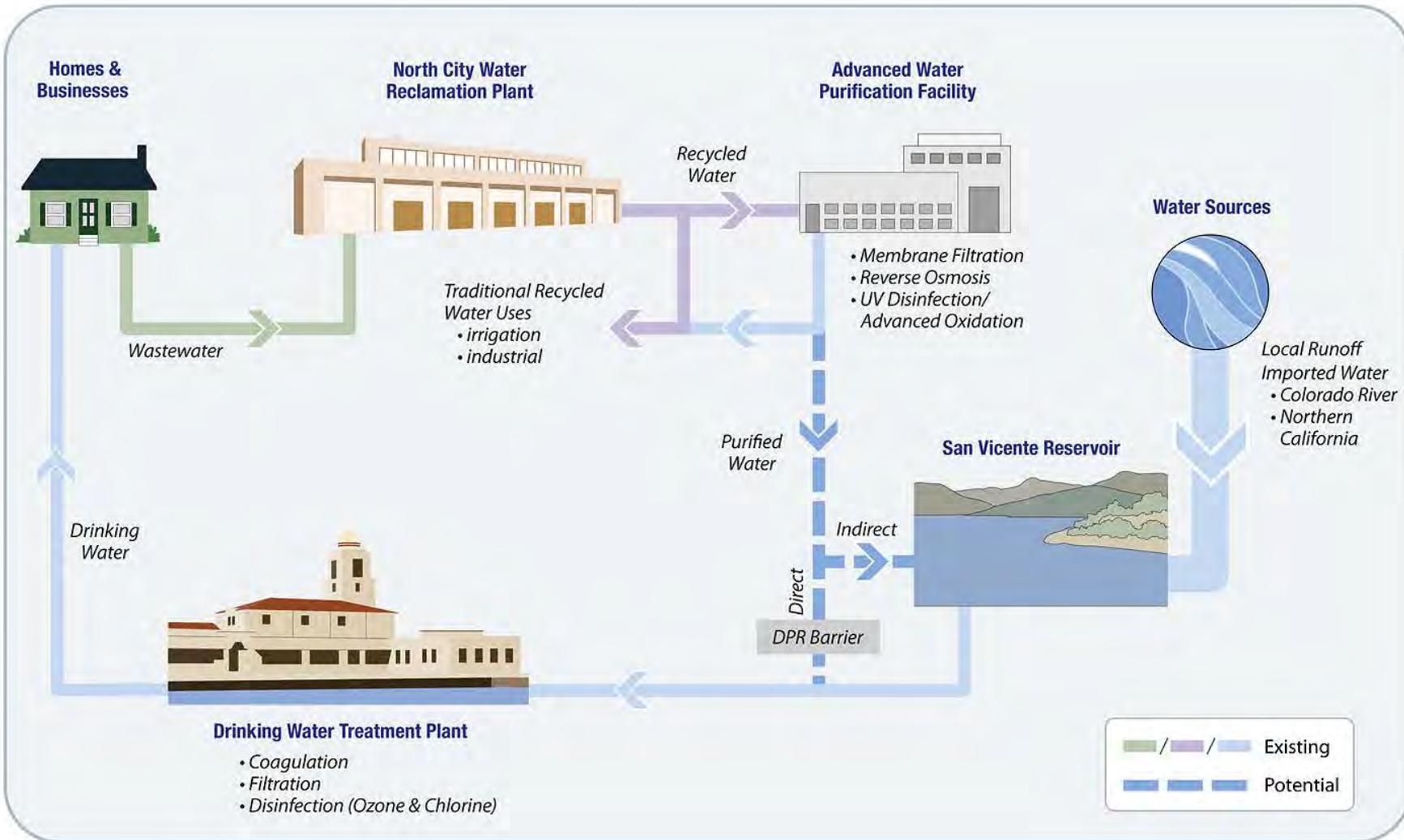
What is Pure Water San Diego?

- 20-year program to provide a safe, reliable and cost-effective drinking water supply for San Diego
- Uses proven water purification technology and is environmentally friendly
- Provides a locally controlled, drought-proof water supply
- Eliminates the need for expensive upgrades to the Point Loma Wastewater Treatment Plant





How Does This Process Work?





Pure Water San Diego Has Been Successfully Demonstrated

1 million

- Conducted
- Except
- Energy consumption is approximately

Microfiltration & Ultrafiltration

Project

met all standards

no distilled water

water and cost is

not

Advanced Oxidation/UV

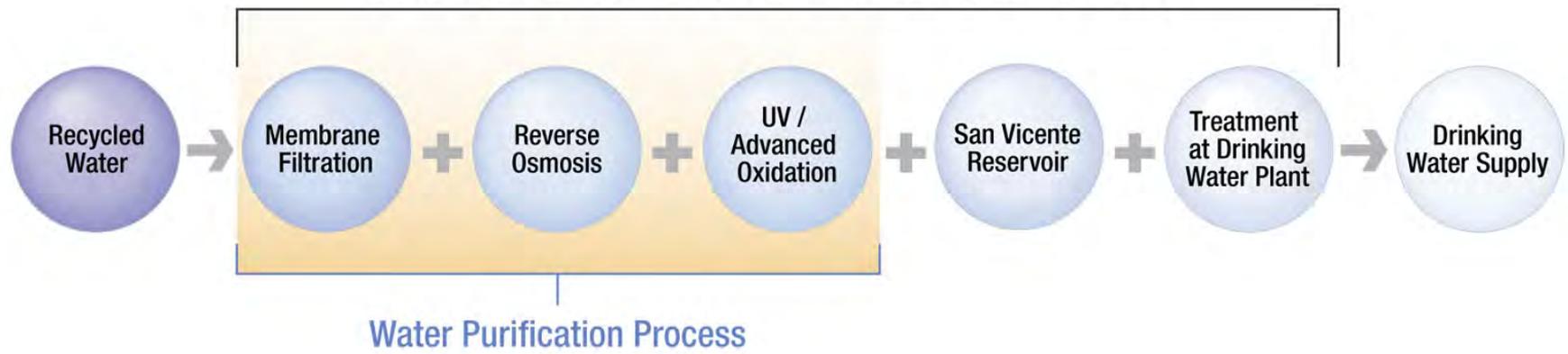
& Hydrogen Peroxide





WATER PURIFICATION PROCESS

Multi-Barrier Water Purification Steps



Microfiltration & Ultrafiltration



Reverse Osmosis



Ultraviolet Light / Hydrogen Peroxide





Independent Advisory Panel Verified



Experienced scientists & health professionals reviewed and evaluated research studies and treatment

[George Tchobanoglous](#), Ph.D., P.E., Chair

Professor Emeritus, UC, Davis

[Richard Gersberg](#), Ph.D., Vice-Chair

Interim Director, SDSU Graduate School of Public Health

Director, Coastal and Marine Institute, SDSU

[Michael A. Anderson](#), Ph.D.

University of California, Riverside

[Sunny Jiang](#), Ph.D.

University of California, Irvine

[Richard Bull](#), Ph.D.

Consulting Toxicologist

MoBull Consulting (Richland, WA)

[Joseph A. Cotruvo](#), Ph.D.

Principal

Joseph Cotruvo Associates (Washington, D.C.)

[Michael P. Wehner](#)

Director of Water Quality and Technology
Orange County Water District (Fountain Valley, CA)

[James Crook](#), Ph.D., P.E.

Water Reuse Consultant (Boston, Massachusetts)

[David R. Schubert](#), Ph.D.

The Salk Institute for Biological Studies

[Audrey D. Levine](#), Ph.D., P.E., DEE

U.S. Environmental Protection Agency



Others Are Doing It Successfully

Orange County, CA



- Operating since 2008
- Places purified water into the groundwater basin
- Currently expanding its capacity

Fairfax, VA

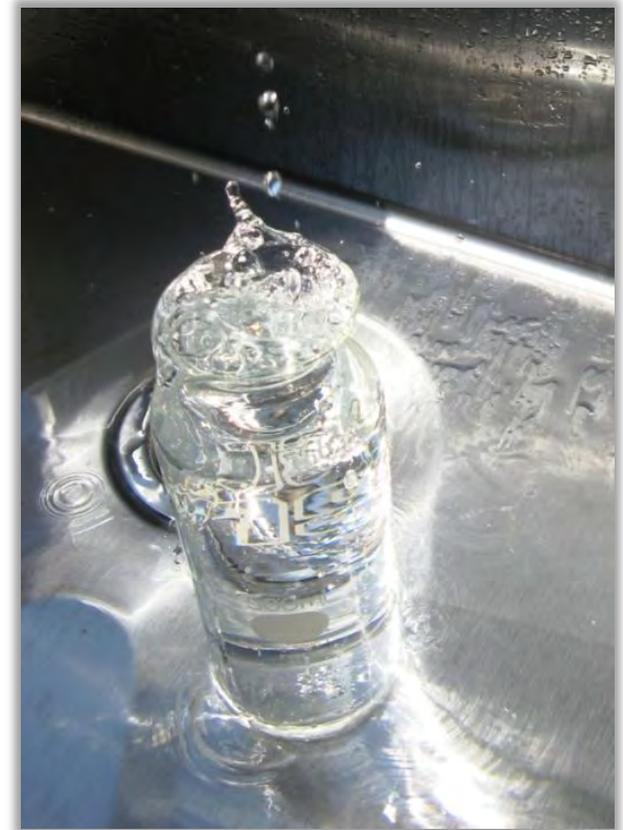


- Operating since 1978
- Recycled water is added to a surface storage reservoir
- Potable water supply source for Fairfax County, VA



State & Federal Regulators Are Supportive

- September 7, 2012, California Department of Public Health approves the San Vicente Reservoir Augmentation Concept
- February 12, 2013, the Regional Water Board supports the City's efforts to develop the San Vicente Reservoir Augmentation Project





Developing Our Local Water Supply

Initial phase 2023

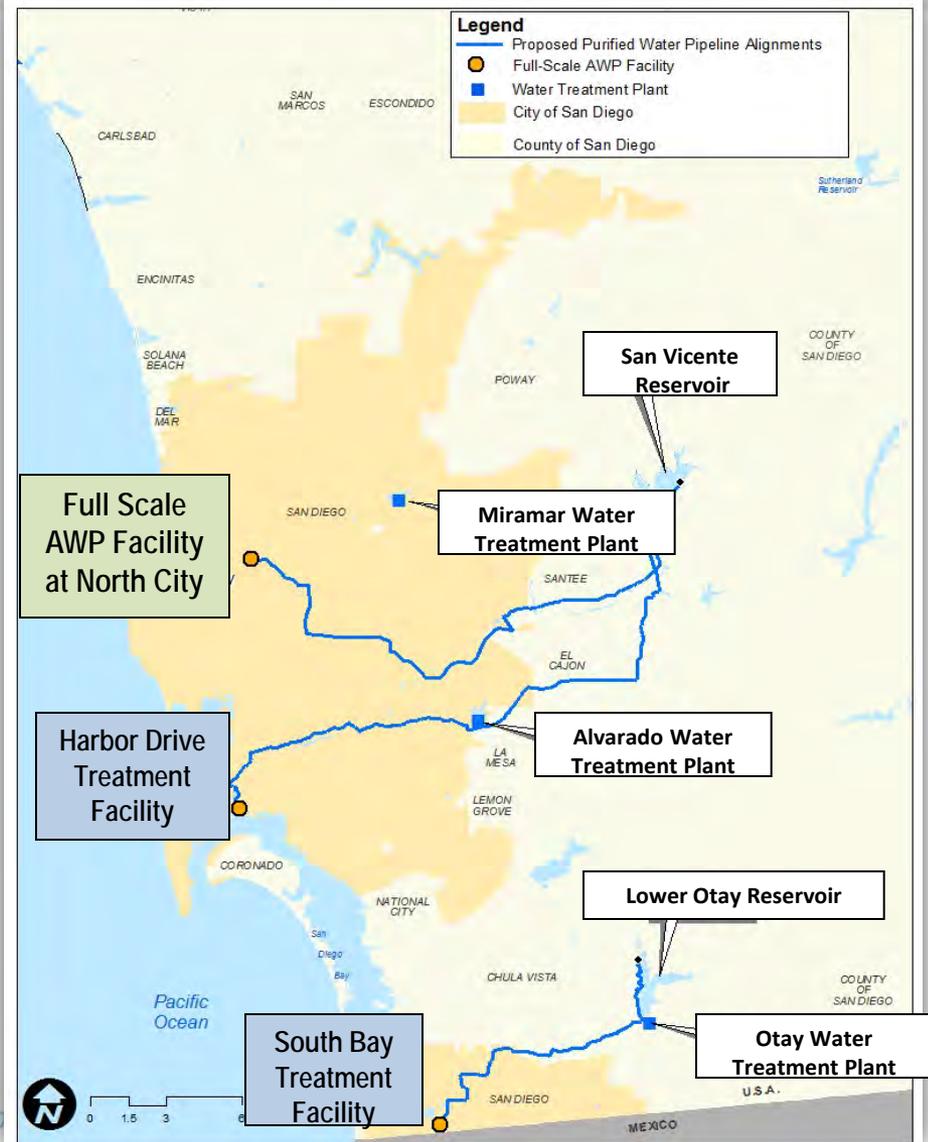
15 MGD

Wastewater will be purified at North City Plant and delivered to San Vicente Reservoir

Long-term 2035

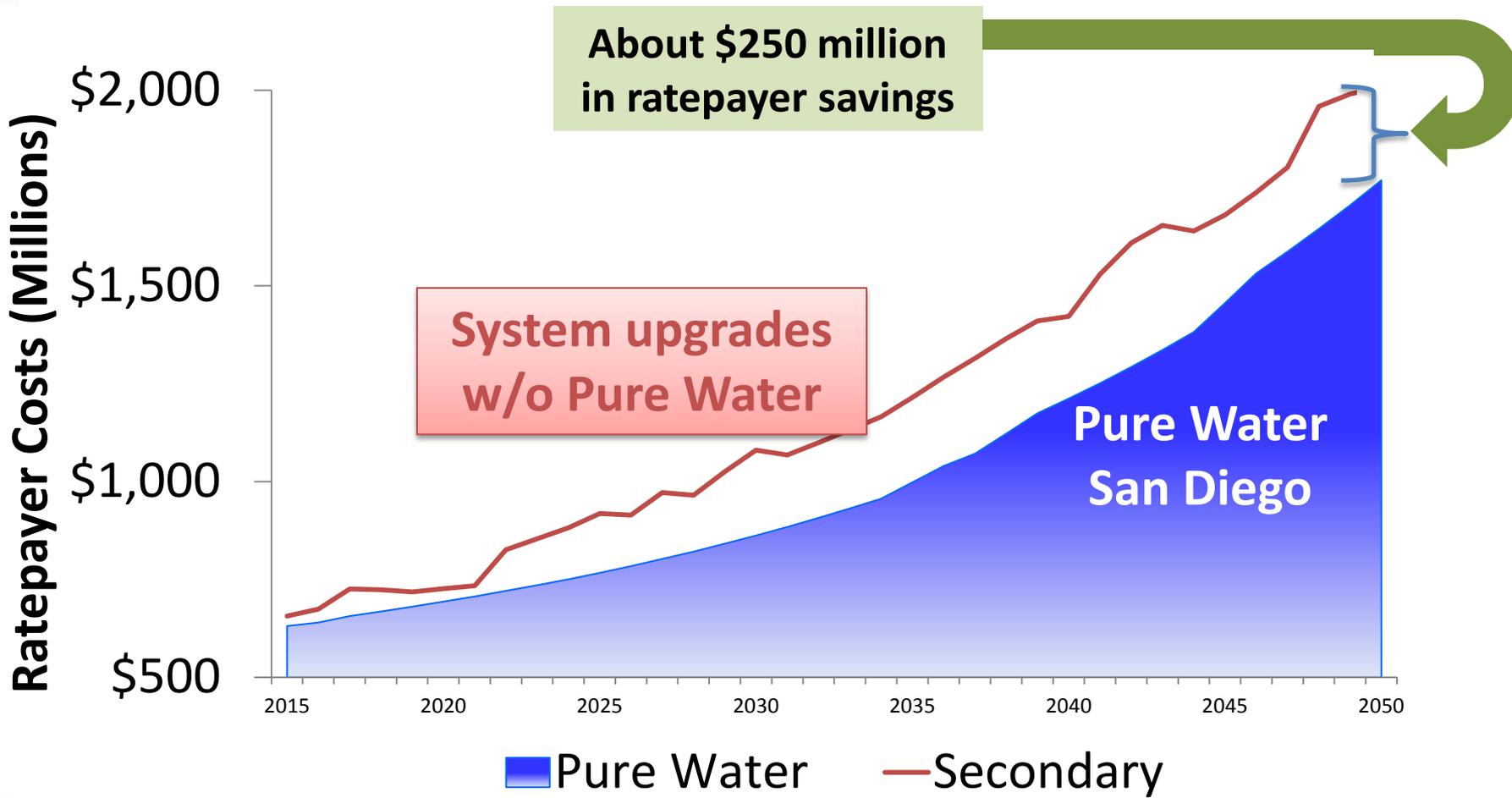
83 MGD

Wastewater will be purified at Harbor Drive Treatment Facility and South Bay Plant and delivered to San Vicente and Otay Reservoirs





Pure Water San Diego Saves Money





Who Supports Pure Water?

- Elected Officials
 - City Council Resolution, April 29, 2014
 - City Council Point Loma permit application approval, Nov. 18, 2014
- Environmental Groups
- Wastewater Participating Agencies
- Professional Engineering Community
- Water Reliability Coalition
- Business Community
- Independent Rates Oversight Committee





What Can I Do?

- Visit our website:
PureWaterSD.org
- Register for tours:
PureWaterSD.org/tours
- Join our mailing list or sign
a support card



Pure Water San Diego



@PureWaterSD



purewatersd





Please check all that apply:

I support the Pure Water San Diego Program.

I would like to receive updates about Pure Water San Diego.

I would like a presentation given to my organization.

Please send information to:

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Questions?

